

the lower fragment of the latter could be easily drawn upwards, allowing the adaptation of the fragments. Catgut sutures were employed to hold them together. The upper wound was carefully closed, the lower one left open and plugged with iodoform gauze. Antiseptic dressings were applied over all. Dressings removed six days later. Upper wound healed. In five weeks firm union of the fragments was accomplished, the patient making his first attempt to walk a week later. Energetic massage of the muscles of the thigh was carried out from that time on, and active and passive movements of the knee-joint.

After a month of this treatment, patient discharged. Patient cannot bend the knee to a right angle, but is able to extend it with great strength, almost entirely. The portions of the patella are firmly united evidently by osseous tissue, as is also the tuberosity of the tibia, which was displaced upwards.

Author recommends this method of chiseling off the tuberosity of the tibia in order to bring the ends of the patella together, in cases of old fractures, instead of dividing the tendon of the quadriceps. He does not consider it probable that non-union or necrosis of the chiselled off tuberosity is likely to occur. He advises, furthermore, the puncture of the cavity of the joint, when this is filled with blood, and the early employment of massage of the flexors of the lower leg. —*Deutsch. Med. Wochensh.* No. 1. Jan. 6, 1887.

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**IV. On Neuropathic Joint Affections.** By Prof. CZERNY (Heidelberg). The type of arthropathy in ataxics so clearly portrayed by Charcot was attributed by him to tropho-neurotic disturbances. Mitchell, Charcot, Westphal and others have called attention to the frequency of spontaneous fractures in ataxics. Since the fractures and the joint troubles occur frequently in conjunction, both are doubtless to be ascribed to the same cause. Some authors have found pronounced softening and atrophy of the bone, others not; however, thorough exact investigations on this point are wanting. Ataxics having lost the muscular sense and hence the finer regulation of resistance to external force in considerable portions of the body, single bones might be

put to a hard test by an apparently insignificant force striking them disadvantageously. The analgesia of tabetics is very important. An inflamed joint continues to be used long after the time when with normal sensation it would be voluntarily immobilized. This misuse augments the grinding off process. The analgesia may be limited to the deeper nerves, when it is more difficult to determine. The possible etiological connection between the frequent fractures in lunatics and the spontaneous fractures of ataxics was suggested by P. Bruns in 1882. Neumann, in 1883, attributed to a trophoneurosis (from vaso-motor trouble) the bone-fragility in psychoses, pellagra, osteomalacy, infantile paralysis, progressive muscular atrophy, locomotor ataxy, leprosy, and various other diseases. More recently spontaneous fractures have been recorded from gliosis and syringomyelitis.

Czerny does not discuss the localization of the central nervous lesion in these joint troubles, but only gives clinical experience.

# I. CASES DIAGNOSTICATED AS LOCOMOTOR ATAXY.

## A--Ankle Joint.

1. Psychosis and gray degeneration of posterior columns. Subacute arthritis of ankle, resulting in ankylosis. Amputation.

Man of 53 years. The joint trouble began—after weakness and ataxia of legs had reached a high degree—with œdema and redness around left ankle, increased heat and fixation in varo-equinus position. After subsidence of the swelling crepitation was made out, but no pus was obtained on incising. Analgesia of the left lower extremity was noted later. As the false position was not correctable even in narcosis, amputation was performed. Death from the effects of a complicating erysipelas. The special conditions found *p. m.* were chronic pachymeningitis, diffuse sclerosis and atrophy of cerebrum and cord, chronic internal hydrocephalus, and gray degeneration of posterior columns. The articular cartilage of each caput humeri was atrophic, the capsule thickening. The bones of the extremity as also of the other appeared rarefied on section (osteoporosis).

2. Very chronic locomotor ataxy of moderate degree. Arthropathy of ankle-joint from sprain. Arthrotomy. Improvement.